

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Listing of Claims:

Claims 1-3 (Canceled).

Claim 4 (Currently Amended): A diffraction element comprising:

a substrate, ~~comprising~~ with an incoming-side surface opposite to an outgoing-side surface, the incoming-side surface configured to receive light external to the substrate[[,]]; ~~a diffraction grating comprising:~~

an incoming-side diffraction grating having a concave/convex shape in cross-section disposed in a central region of the incoming-side surface;

a first outgoing-side diffraction grating having a concave/convex shape in cross-section disposed in the outgoing-side surface and configured to receive light diffracted by the incoming-side diffraction grating, ~~the~~ a grating pitch of the incoming-side diffraction grating being substantially equal to ~~the~~ a grating pitch of the first outgoing-side diffraction grating; and

a second outgoing-side diffraction grating covered ~~comprising by~~ a reflective single layer inorganic film and having a concave/convex shape in cross-section, the second outgoing-side diffraction grating ~~disposed~~ positioned on a light path of a light diffracted by said in the first incoming-side outgoing-side diffraction grating.

Claim 5 (Currently Amended): The diffraction element according to Claim 4, wherein the second ~~first~~ outgoing-side diffraction grating forms is a reflection type diffraction grating.

Claim 6 (Currently Amended): The diffraction element according to Claim 5, wherein the second ~~first~~ outgoing-side diffraction grating has a saw-tooth concave/convex portion or a pseudo sawtooth diffraction grating wherein a saw-tooth shape is approximated by stairs.

Claim 7 (Currently Amended): The diffraction element according to Claim 5, wherein the second ~~first~~ outgoing-side diffraction grating comprises a pseudo sawtooth diffraction grating having a saw-tooth shape approximated by stairs, and a height or depth of a first step of the stairs is different from a height or depth of a second step of the stairs.

Claims 8-11 (Canceled).

Claim 12 (Currently Amended): A method of diffracting light with a diffraction element including ~~[[a]]~~ diffraction ~~grating~~ gratings having ~~[[a]]~~ concave/convex ~~shape~~ shapes in cross-section formed in an incoming-side surface and an outgoing-side surface of a transparent substrate, in which the incoming-side surface is opposite the outgoing-side surface, and the incoming-side surface is configured to receive light external to the diffraction ~~grating~~ gratings, the diffraction ~~grating~~ gratings including,

an incoming-side diffraction grating disposed in a central region of the incoming-side surface, and

a first outgoing-side diffraction grating disposed in the outgoing-side surface and configured to receive light diffracted by the incoming-side diffraction grating, ~~the a~~ a grating pitch of the incoming-side diffraction grating being substantially equal to ~~the a~~ a grating pitch of the first outgoing-side diffraction grating, and ~~the diffraction grating including~~

a second outgoing-side diffraction grating covered by a reflective ~~with a single layer inorganic film~~, the second outgoing-side diffraction grating ~~disposed in the first outgoing-side~~

positioned on a light path of a light diffracted by said incoming-side diffraction grating, the first and second outgoing-side diffraction gratings ~~being reflection-type diffraction gratings~~ each having a saw-tooth concave/convex portion or a pseudo sawtooth diffraction grating wherein a saw-tooth shape is approximated by stairs, the method comprising:

directing to a wavelength measuring apparatus light diffracted by the first and second outgoing-side diffraction gratings.

Claim 13 (Previously Presented): The method according to claim 12, wherein the incoming-side diffraction grating has a saw-tooth shape.

Claim 14 (Currently Amended): A diffraction element comprising:

a substrate having first and second surfaces opposite one another;

a first diffraction grating disposed in a central portion of the first surface, the first diffraction grating configured to receive light from outside of the substrate, the first diffraction grating having a first grating pitch;

a second diffraction grating disposed in the second surface, the second diffraction grating configured to receive light diffracted by the first diffraction grating, the second diffraction grating having a second grating pitch ~~about~~ substantially equal to the first grating pitch[,]; and

a third diffraction grating, ~~comprising covered by a single reflective layer inorganic film,~~ disposed in the second surface, the third diffraction grating configured to receive light diffracted by the first diffraction grating ~~the third diffraction grating disposed in the second diffraction grating.~~

Claim 15 (New): The diffraction element according to Claim 4, wherein the incoming side diffraction grating and the first outgoing-side diffraction grating are arranged in a main axis of the external light, both diffraction gratings being centered on the substrate.

Claim 16 (New): The diffraction element according to Claim 4, wherein a width of the incoming-side diffraction grating is configured such that only a center portion of the external light, having a stronger intensity, is passed through the first incoming side diffraction grating.